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State of Montana



Report to the Legislature

December 1996

Performance Audit

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Administration of Consultant Design Projects

Consultant Design Section

Montana Department of Transportation

This report contains recommendations for improving how the department administers consultant design projects. These recommendations address:

- ▶ The consultant selection process including contract negotiations and local government projects.
- ▶ Management controls over the contract supplement process.
- ▶ The process to establish project schedules and to more actively manage consultant projects.

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LEGISLATIVE AUDIT DIVISION

December 1996

The Legislative Audit Committee
of the Montana State Legislature:

We conducted a performance audit of the process the Department of Transportation uses to administer consultant design projects. This report contains recommendations for strengthening management controls over the consultant design process. A response from the Department of Transportation is contained at the end of the report.

We wish to express our appreciation to the staff of the Department of Transportation for their cooperation and assistance.

Respectfully submitted,



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Legislative Audit Division

Performance Audit

Administration of Consultant Design Projects

Consultant Design Section

Montana Department of Transportation

Members of the audit staff involved in this audit were Joe Murray and Jim Nelson.

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Table 1

Active Consultant Design Projects
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Appointed and Administrative Officials

Department of Transportation

Marvin Dye, Director

Gary Gilmore, Administrator, Engineering Division

Carl Peil, Preconstruction Engineer, Preconstruction Bureau

Doug Morgan, Preconstruction Design Engineer, Preconstruction Bureau

Sam Naseem, Consultant Design Engineer, Consultant Design Section

Introduction

The Montana Department of Transportation (MDT) uses consultants to provide a variety of services such as road design, surveying, and environmental studies. Similar procedures are followed to administer consultant contracts for all these services. However, our audit concentrated on road design projects since consultants are most often used for road design. In September 1996, 80 percent of the active design projects were road design projects accounting for \$17 million of the department's \$20 million in consultant design projects.

The MDT unit responsible for administering consultant design projects is the Consultant Design Section (CDS). The CDS develops Request-for-Proposals, selects consultants, negotiates consultant contracts, monitors designs to ensure contract requirements are met and coordinates the department's design work with consultants.

Our review of the consultant design process resulted in several recommendations to improve the department's administration of these designs. The recommendations address the consultant selection process, controls over contract supplements, project scheduling, and overall project management. One of the reasons we were asked to look at the consultant design process was the large number of contract supplements submitted by the consultants. We found supplements occur for many reasons and that it is not possible to eliminate all supplements.

How Does the MDT Hire a Consultant?

State and federal laws spell out the criteria which must be followed when procuring specific types of consultant services and requires consultants be selected based upon their qualifications. In addition, these laws also require contracts for consultant services be negotiated to obtain the contract at "fair and reasonable prices." The MDT may not consider cost when choosing a consultant to do a design. This decision must be based on the firm the department believes to be the most qualified to do a particular design.

Report Summary

Consultant Selection

Consultant selection is the process of acquiring a consultant's services to complete a design for the department. This process consists of several steps including developing a Request-for-Proposal, evaluating consultant proposals, negotiating contract terms, and signing the final agreement. We reviewed 18 consultant design projects to evaluate how effectively the department administers these projects. The department entered into 13 of these projects after the Attorney General issued an opinion in 1992 indicating state agencies may not consider a proposed fee when obtaining engineering services but must negotiate a fair and reasonable fee after selecting the most qualified consultant.

Contract Negotiations and Cost Estimates

Since cost can not be considered when selecting consultants, negotiations are the department's only tool for ensuring the department enters into a contract for a fair and reasonable price. However, we found a minimal amount of effort goes into negotiating contracts with consultants. For the thirteen projects where the cost of the contract should have been negotiated, eight (61.5 percent) contained no evidence the CDS negotiated the contract with the consultant.

Negotiations with consultants should be based on cost estimates prepared by the project engineers assigned to the projects. We reviewed the process for preparing cost estimates and found limited effort goes into preparing them. Six of the projects did not contain evidence that cost estimates had been done. In addition, we also identified three projects where cost estimates were not completed until after the consultants submitted their proposals for the project. For those projects where estimates were done, we were unable to determine how the estimates were prepared because the process was not documented.

The department should establish procedures on how cost estimates should be prepared, establish a management review process to review cost estimates before negotiations take place, and provide training to project engineers to develop negotiation skills or use other MDT staff with negotiation experience.

Past Performance

When evaluating initial proposals, the department places the most emphasis on a consultant's past performance. Past performance constitutes 40 percent of a consultant's score and relates to how well consultants performed on previous projects. We noted that even though the CDS places significant emphasis on a consultant's past performance there is not an effective system in place to rate it. Federal law and CDS procedures requires formal performance evaluations of consultants be prepared by the employee responsible for managing the consultant contract. However, our review found consultants are not being formally evaluated.

The amount of emphasis placed on a consultant's past performance prescribes a system be in place to ensure it can be effectively and fairly evaluated. This system should include completing formal evaluations of consultants when a design is completed and discussing the evaluation with the consultant. Information regarding the evaluation should also be maintained in the consultant's file for future reference.

Consultant Location

Section 18-8-204, MCA, sets forth the minimum criteria which must be followed when state agencies procure architectural, engineering, and land surveying services. Our review found the procedures established by the CDS meet most of the criteria spelled out in state law. However, consultant location is not being considered which is one of the state law requirements. The MDT should consider a consultants location during the selection process since state law requires location to be one of the selection criteria. However, since location may not be relevant on all projects, procedures should be developed on when it will be used and the amount of weight which will be applied to it.

City and County Projects

During our review of consultant design projects for cities and counties we noted required CDS procedures were not always followed. Examples of problems included consultant proposals not formally evaluated and inappropriate rating criteria used. There were also inconsistencies in the amount of involvement CDS had in selecting consultants for these projects. Federal regulations require all government agencies follow the department's selection procedures to ensure an equitable selection process whenever

Report Summary

federal-aid funds are involved. These regulations also place the responsibility on the department to ensure other government agencies follow these procedures. The department should establish controls to ensure local governments follow proper consultant selection procedures.

Contract Supplements

A supplement is an agreement to modify the dollar amount of the original contract to compensate a consultant for work outside the scope of the original contract. CDS currently administers 60 consultant design projects which had an original cost of \$12.3 million. Supplements for these projects totaled \$7.8 million which increased the cost of these contracts to \$20.1 million.

Controls Over Supplements Must be Improved

MDT policy requires the department to approve supplements before any additional work is done on a project. This policy is designed to give the MDT the control to determine if the work is outside the scope of the original contract, what work activities are needed, and the cost of the additional work. We identified a number of concerns related to the department's controls over supplements. For example, project engineers were not always aware additional work was needed until after the consultant had started or completed the work. We also questioned the need for some supplements which were approved and often could not determine whether the cost of the supplements were "fair and reasonable" to the state.

Approving supplements should follow procedures similar to those used for the original contract. This includes determining what the scope of work should be, preparing a reliable cost estimate, and negotiating the cost of the supplements with the consultant. However, based on our file reviews we found the CDS does not always do this. Cost estimates were not documented for 14 of the 21 supplements (67 percent) we reviewed. Therefore, we were not able to determine if the cost of these supplements was fair and reasonable or if all the additional work was needed. We also found limited evidence indicating CDS staff negotiated supplements with consultants.

The department does not have an adequate control system over contract supplements. Department management is not actively

involved in reviewing and approving supplements. There is limited discussion between project managers and MDT management about project supplements. The department should establish a control system which requires department management be more involved in reviewing and approving supplements.

Project Administration

The CDS is responsible for administering consultant designs once a contract is signed. Project administration includes scheduling when projects will be completed, identifying potential problems, approving project invoices for payment and coordinating information and activities between the various MDT units and the consultant.

Project Schedules

One of the most useful tools in effectively managing a project is the development of a detailed project schedule. However, we noted a formal system is not used to schedule consultant design projects. This has resulted in delays by the department in getting design-related information to consultants and delays by the department in reviewing and approving design-related reports provided by consultants.

The department utilizes its Project Management System (PMS) to schedule activities for in-house designs. The PMS is a critical path scheduling system designed to schedule a series of design activities within the department. We believe the PMS would also be the most effective way for the MDT to schedule consultant design projects.

Project Management

The main function of project engineers is to be a liaison between the MDT and consultants the department has hired. Based on our review of consultant design projects, we identified a number of concerns related to how effectively consultant design projects are managed. For example, documentation related to cost estimates and consultant selection was missing from project files, signed agreements for contract supplements did not always exist, project documentation was filed with the wrong project, and projects were often not on schedule. We also found there was a general lack of effort or organization to coordinate consultant design projects with other MDT units and consultants. Based upon the concerns we

Report Summary

identified we do not believe consultant projects are being actively managed.

To actively manage consultant design projects the department should institute four steps. First, the MDT should establish the basis for effective communications between the project engineer, other MDT units and districts, and the consultant. Second, the MDT should require project engineers to organize their work. Third, CDS management and project engineers should hold periodic in-house project status meetings. Finally, management reviews of the projects would help ensure projects are actively managed.

Chapter I - Introduction

Introduction

The Montana Department of Transportation (MDT) uses consultants to provide a variety of services such as road design, surveying, and environmental studies. Consultant projects are administered by the department's Consultant Design Section. Our audit focused on road design projects where the department hired a consultant.

MDT's management recognized consultant designs needed to be more effectively managed. The department believed a performance audit would provide them with the direction to accomplish this. At the request of the department, the Legislative Audit Committee approved a performance audit of the department's process to administer consultant designs.

In response to the issues raised during this audit, the department organized a team to review the recommendations and determine how to address them. This group consisted of consultants, Federal Highway Administration personnel, and MDT personnel.

Audit Objectives

The objectives of our performance audit were to:

1. Examine MDT's internal controls over the consultant administration process and determine how the process could be more efficient and effective.
2. Determine if the consultant administration process is in compliance with applicable state and federal laws and regulations.
3. Make recommendations to MDT about how it can improve its consultant administration process.

Audit Scope and Methodology

This audit was conducted in accordance with government auditing standards for performance audits. Our audit work concentrated on the department's Consultant Design Section (CDS) since the CDS administers MDT's consultant projects.

We assessed how consultants are selected, reviewed the controls over contract supplements, and examined how effectively consultant projects are managed. We reviewed written procedures for administering consultant design projects and compared them to

actual procedures followed. We also reviewed state and federal laws and regulations regarding consultant services. These laws and regulations spell out criteria which must be followed when administering consultant design projects. Our evaluation included determining whether CDS complied with these laws and regulations.

We interviewed CDS staff and management regarding consultant design administration. We contacted staff from other MDT units, district offices, and officials from the Federal Highway Administration (FHWA). The input of consultants and professional consulting organizations was obtained regarding CDS's process for administering consultant design projects. We also contacted highway agencies in Arizona, Idaho, and South Dakota and discussed their procedures for administering consultant designs.

We assessed CDS' administrative controls over consultant design projects. This included evaluating consultant selection, contract supplements, and management of individual projects. To do this, we reviewed documentation for 18 consultant design projects which were active as of September 1996. This review included selection documentation, consultant contracts, contract supplements, progress reports, and various correspondence between the CDS, other MDT units and districts, and consultants. Reviews of these projects were supplemented with discussions with CDS personnel, staff from other MDT units and districts, and consultants.

We explored alternatives to current methods used by the CDS to administer consultant design projects. Where weaknesses were identified with the current process, recommendations were developed to help strengthen the process.

Compliance

We examined department compliance with applicable state and federal laws and regulations. We found areas where the department is not in compliance. Noncompliance with federal laws and regulations could jeopardize federal fund participation in state highway construction projects. These areas are discussed in chapters III, IV, and V.

Chapter II - Background

MDT Uses Consultants for a Variety of Services

The MDT hires consultants for many different types of services needed by the department. Services where the department often uses consultants include:

- Road design
- Bridge design
- Surveying
- Hazardous waste projects
- Environmental impact studies
- Cultural resource plans
- Management consultation

Similar procedures are followed to administer consultant contracts for all these services. However, our audit concentrated on road design projects since consultants are most often used for road design.

Why Does the MDT Use Consultants?

There are four main reasons why the department uses consultants for road design projects. Generally the decision to use a consultant consists of some combination of these four factors.

Supplement MDT design resources - If the MDT does not have the design staff available to complete a design it will hire a consultant. Consultants are often hired to cover peak workloads for the department.

Controversial projects - Consultants are often used for projects where the department expects a high level of resistance which would require the MDT to commit a significant amount of staff time to the project. Examples of controversial projects include those which experience a high level of landowner resistance or have several environmental concerns.

Complex projects - If a project has variables which make them difficult for the MDT to design a consultant may be hired. A complex project may have unique design requirements or require special expertise the department does not have.

Project timing - If a project needs to be done quickly, the department usually hires a consultant. This is because consultants can generally dedicate more resources to a project than the department can to complete it in a short time frame.

Chapter II - Background

What are MDT's Responsibilities Related to Consultant Design Projects?

The department performs some of the design related work for consultant design projects which must be coordinated with the consultant's work. The amount and type of department involvement varies from project to project. For some projects the department performs activities such as field surveys or geotechnical work. For other projects the department provides information to the consultant which the department has compiled, such as hydraulics information or soil surveys. On all designs the department also reviews and approves reports and project plans submitted by the consultants.

Consultant Design Section

The MDT unit responsible for administering consultant design projects is the Consultant Design Section (CDS). The CDS develops Request-For-Proposals, selects consultants, negotiates consultant contracts, and monitors designs to ensure contract requirements are met and designs progress as scheduled. The CDS coordinates the department's design work with consultants. The CDS also has responsibility over projects located within cities or counties which are funded with federal-aid highway funds and matching state funds.

During fiscal year 1995-96 total CDS expenditures to administer consultant projects were \$537,000. These expenditures included both personal services and operating expenses such as training and equipment. The CDS is authorized 12 full-time equivalent (FTE) employees which include a consultant design engineer, four project engineers, and seven plan checkers. The consultant design engineer is responsible for managing CDS operations. Project engineers administer individual consultant design contracts. Plan checkers review consultant plans to ensure they comply with federal and state design requirements.

Road Designs are the Most Common Type of Design

We classified consultant design projects into four major categories: road design, interchanges, bridges, and rest areas. In September 1996 there were 60 active projects included in one of these categories. The most common type of design in which consultants are used is for road design. Forty-eight of the sixty projects (80 percent) currently active are road design projects. In addition, these projects account for over \$17 million (85 percent) of the department's \$20 million in consultant design projects.

Chapter II - Background

The following table depicts the number of projects for each category and the contract totals for each.

Table 1
Active Consultant Design Projects
September 1996

<u>Project Type</u>	<u>Number of Projects</u>	<u>Current Contract Amount (total)</u>
Road design	48	\$17,234,540
Interchanges	3	2,054,712
Bridges	2	269,902
Rest areas	<u>7</u>	<u>555,375</u>
Total	<u>60</u>	<u>\$20,114,529</u>

Note: Road design projects may also incorporate other types of projects such as bridge designs.

Source: Compiled by the Legislative Audit Division from MDT records.

How Does the MDT Hire a Consultant?

State and federal laws spell out the criteria which must be followed when procuring specific types of consultant services and requires that consultants be selected based upon their qualifications. Section 18-8-201, MCA, modeled after a similar federal law (Public Law 92-582), sets forth Montana's policy for obtaining architectural, engineering, and land surveying services. This law requires the state to "... negotiate contracts for such professional services on the basis of demonstrated competence and qualifications for the type of professional services required . . ."

Section 18-8-201, MCA, also requires contracts for consultant services be negotiated to obtain the contract at "fair and reasonable prices." In 1992, the Attorney General issued an opinion clarifying the intent of this law. The Attorney General stated that "state agencies may not consider a proposed fee when selecting

Chapter II - Background

architectural, engineering, or land surveying services, but may negotiate a fair and reasonable fee after the most qualified firm has been selected." Therefore, the MDT may not consider cost when choosing a consultant to do a design. This decision must be based on the firm the department believes to be the most qualified to do a particular design. After a consultant is selected, the department must negotiate a contract with the consultant to obtain the services at a price the department believes is fair and reasonable.

There are several steps involved in the department's process to hire a design consultant. After the consultant is hired, the department then monitors and approves the consultant's work. The following sections discuss each of these steps.

Preliminary Field Review

The first step the department must take is deciding whether a project will be designed in-house or by a consultant. To help make this decision, the MDT completes a preliminary field review of the project. This review identifies a project's major design features, complexity, project-related issues, potential problems, and the type of expertise needed. If a decision is made to use a consultant, information from the preliminary field review is used to develop a Request-for-Proposal (RFP). After the RFP is developed it is mailed to consultants on mailing lists maintained by the CDS. The department categorizes consultants by area of expertise, such as road or bridge design. In addition, projects are advertised in the state's seven major newspapers so consultants who are not on the mailing list may have an opportunity to submit a proposal for the project.

CDS Establishes a "Short List" of Consultants

Responses to the RFP are evaluated by a rating panel to determine which consultants are most qualified to do a design. Members of the rating panel generally include a CDS project engineer, a representative from the related MDT section (i.e., Road Design Section, Bridge Bureau, etc.), and a representative from the district where the project is located. The rating panel uses three factors assigned a specific amount of weight to evaluate each response. Each factor and their corresponding weight include:

- Quality of firm and personnel (25 percent)
- Capability and capacity of firm (35 percent)

- Record of past performance (40 percent)

After the initial proposals are evaluated the scores are summarized and passed on to the Consultant Selection Board. The board reviews the rankings compiled by the rating panel and selects a "short-list" of consultants. A short-list generally consists of a minimum of three consultants determined to be the most qualified for a specific design. These consultants are asked to submit final proposals for the project.

Final Selection

Final proposals focus specifically on the project and are rated by the same panel which evaluated the initial proposals. These proposals are evaluated based on how well the department believes a consultant understands a project's requirements.

To determine how well consultants understand a project the MDT considers several different factors. These include:

- The clarity of the consultant's response and understanding of MDT's project requirements.
- The consultant's ability to identify specific issues involved in the design.
- The consultant's ability to communicate the firm's approach to project issues.
- The organization of the consultant's work plan.

After the final proposals are evaluated the scores are summarized and given to the Consultant Selection Board. The board selects a consultant and contract negotiations begin.

Contract Negotiations

Section 18-8-205, MCA, requires the CDS to enter into contract negotiations with the consultant selected as the most qualified to do a design. This law states the purpose of these negotiations is to obtain the contract at a price the department determines to be "fair and reasonable." Since cost can not be considered when selecting a consultant, negotiations are the only way the department can obtain the consultant's services at a price the department believes is reasonable.

Chapter II - Background

If the MDT is unable to negotiate a satisfactory contract with the selected consultant, state and federal law allows the MDT to end negotiations with the consultant. The MDT can then enter into negotiations with the consultant rated as the second most qualified. This process can continue until the department finds a consultant with whom they can negotiate a cost the MDT believes to be fair and reasonable.

Contract Monitoring

After a contract is signed, CDS staff monitors the contract to ensure its terms are met. CDS staff must maintain contact with the consultant, review the consultant's progress reports for contract compliance and project accomplishments, and approve or reject the payment of invoices submitted by the consultant. The CDS also makes the decision if work beyond the scope of the original contract is necessary to complete a project. In addition, CDS staff review and approve design-related reports and plans submitted by consultants. They must also ensure other MDT units obtain copies of these reports and plans for their review and approval.

Summary

One of our main objectives was to examine the department's internal controls over the consultant administration process and determine if improvements are needed. The purpose of internal controls is to provide management with assurance that the use of resources is consistent with laws, regulations, and policies. In addition, a good system of internal controls strengthens program operations by making government activities more effective.

A number of areas were identified where improvements can be made. These areas include the process for selecting consultants, the controls over contract supplements, and the process for managing consultant projects. The following chapters discuss each of these issues.

Chapter III - Consultant Selection

Introduction

Consultant selection is the process of acquiring consultant's services to complete a design for the department. This process consists of several steps including developing an RFP, evaluating consultant proposals, negotiating a contract, and signing a final agreement. Chapter II detailed how the selection process works and the state and federal laws which govern the selection process.

We analyzed CDS' process to select consultants and found areas where improvements can be made. These areas include preparing project cost estimates and negotiating with consultants, criteria used to select consultants, and overseeing selections involving local governments. This chapter discusses each of these areas.

Limited Effort Placed on Contract Negotiations

We reviewed 18 consultant design projects to evaluate how effectively the department administers these projects. The department entered into contracts with consultants for 13 of these projects after the Attorney General issued an opinion indicating state agencies may not consider a proposed fee when obtaining engineering services but must negotiate a fair and reasonable fee after the most qualified consultant has been selected. Since cost can no longer be considered when selecting consultants, negotiations are the department's only tool for ensuring the department enters into a contract for a fair and reasonable price. However, based on our review of project files, we found a minimal amount of effort goes into negotiating contracts with consultants. We reviewed the 13 projects where the contract should have been negotiated and found 8 (61.5 percent) contained no evidence the CDS negotiated the contract with the consultant. For five of these projects, files had not been established even though the projects had been active for more than five months.

Chapter III - Consultant Selection

Cost Estimates Not Always Completed

Negotiations with consultants should be based on cost estimates prepared by the project engineer assigned to the project. We reviewed the process for preparing cost estimates and found limited effort goes into preparing them. Six of the projects we reviewed did not contain evidence that cost estimates had been done. We also identified three projects where cost estimates were not completed until after consultants submitted proposals for the project. This included a project where the estimate was not done until after the final proposal was submitted spelling out the number of hours the consultant proposed for the project. CDS selection procedures require cost estimates be completed when the RFP is prepared. We were also unable to determine if cost estimates were done for five projects because project files did not exist.

We found some CDS staff believe cost information that consultants provide is more reliable and accurate than information CDS staff can develop themselves. For example, consultants submitting final proposals are required to supply the CDS with sealed cost proposals. Some project engineers indicated they open the sealed cost proposals after a consultant is selected. These project engineers indicated they have used these cost proposals as the basis for negotiations with the selected consultant instead of cost estimates the project engineer prepared.

CDS Does Not Document How Estimates Are Done

When cost estimates are done, project engineers indicated they do not always follow the same procedures from project-to-project when preparing cost estimates. They indicated for some projects they simply rely on old proposals to prepare the estimate while for other projects they may use information from MDT resources, such as in-house design staff. For projects where cost estimates were done we were unable to determine how the estimates were prepared because the process was not documented.

We believe it is important that project engineers document how they obtained the information used in their cost estimates. This would give the estimate more credibility when management reviews the estimate or when consultants want an explanation on why CDS wants a consultant to lower their cost during negotiations.

Other States Have a More Defined Process

Transportation departments from other states were contacted to determine their process for estimating cost. States we contacted have the same requirements as Montana in that selecting a consultant must be qualification-based. Overall, we found these states have more defined processes for estimating the cost for consultant design projects. For example, Idaho officials indicated they focus on the number of hours it will take to do a design. They said the in-house design staff prepare the estimates because these staff are the department "experts" in the area. Idaho officials indicated the negotiation process often takes several days to complete. If they are unable to come to an agreement on a contract price, Idaho officials said they cease negotiations with the consultant and begin negotiations with the consultant next on the list. State and federal law also allow MDT officials to cease negotiations with consultants if they are unable to reach an agreement on the price of a contract. However, MDT officials told us the department has never exercised this option.

Why Do Weaknesses Exist?

There are a number of reasons why limited effort goes into negotiations with consultants. There are no detailed procedures on how to prepare cost estimates for consultant designs. Some project engineers indicated they have little confidence in the cost estimates they prepare. Consequently, they often rely on information provided by consultants and conduct limited, if any, negotiations with consultants. There is also no management review of cost estimates prepared by the project engineers. We discussed this issue with department officials. They indicated the department has not provided the means for project engineers to develop the skills to effectively negotiate contracts with consultants. Department officials believe these skills can be developed by providing project engineers with appropriate training. Another option could be for the department to use other department staff who have experience in negotiating contracts.

Chapter III - Consultant Selection

Recommendation #1

We recommend the department:

- A. Establish and implement procedures on how cost estimates should be prepared.
- B. Establish a management review process to review cost estimates before negotiations take place.
- C. Provide training to project engineers to develop their negotiation skills or use other staff with negotiation experience.

Selection Criteria

Federal and state law and CDS procedures spell out the criteria which should be used to select consultants. We identified an issue related to how the CDS evaluates past performance which is one of the major criterion used to select consultants. We also found the CDS does not formally consider the location of consultants when selecting consultants as required by state law. The following sections address each issue.

Significant Emphasis Placed on Past Performance

One of the first steps in hiring a consultant is to evaluate the initial proposals they submit. This evaluation determines which consultants will be asked to submit final proposals. As discussed in chapter II, three factors are considered when initial proposals are evaluated. Of these three factors, the CDS places the most emphasis on a consultant's past performance. Past performance constitutes 40 percent of a consultant's score and relates to how well consultants performed on previous projects.

Several factors are considered when assessing a consultant's past performance. These include quality of the work; on-schedule performance; and, cooperation with CDS staff. If the consultant has no previous record with the department then the rating panel contacts references provided by the consultant. We noted that even though the CDS places the most emphasis on a consultant's past performance there is not an effective system in place to rate it.

Formal Evaluations of Consultants Not Completed

CFR 23.172.13 and CDS procedures require the employees responsible for managing a consultant contract to prepare a formal performance evaluation of a consultant when a project is completed. However, our review of consultant design projects found consultants are not being formally evaluated.

Performance evaluations could provide a means for the CDS to communicate with the consultant in regards to how well a design was completed. It could open up a discussion about what worked well during a design or help determine where improvements can be made in future designs. In addition, CDS procedures indicate copies of the evaluation are to be maintained in the consultant's file "for use by rating panels on subsequent proposals." The reason for this is to provide documentation so informed decisions can be made regarding a consultant's performance when future proposals are rated. Presently, this decision is based on the recollection of CDS staff instead of documented evidence.

Consultants told us they would like to have their performance formally evaluated to inform them of how well they did and how they could improve on future designs. Since the CDS does not conduct formal evaluations, consultants also questioned how the CDS can effectively rate their past performance when evaluating their proposals.

Formally Evaluate Past Performance

The amount of emphasis placed on a consultant's past performance prescribes a system be in place to ensure it can be effectively and fairly evaluated. This system should include completing formal evaluations of consultants when a design is completed and discussing the evaluation with the consultant. Information regarding this evaluation should also be maintained in the consultant's file for future reference.

Recommendation #2

We recommend the department complete formal end-of-project performance evaluations of consultants and maintain the evaluations for future reference.

Chapter III - Consultant Selection

State Law Requires Consultant Location be Considered

Section 18-8-204, MCA, sets forth the minimum criteria state agencies must follow when procuring architectural, engineering, and land surveying services. This law requires agency procedures for selecting consultants to include at a minimum the following criteria:

- Qualifications of personnel assigned to the project
- Capability to meet time and project budget requirements
- Location of firm
- Present and projected workload
- Related experience on similar projects
- Recent and current work for the agency

Our review found the procedures established by the CDS meet most of these basic criteria. However, under current selection procedures consultant location is not considered for any project where the department hires a consultant.

Nature of Project Determines Whether Location Should be Considered

According to the Federal Highway Administration (FHWA), location should be a consideration if a design requires a consultant to spend a great deal of time at the project site. For example, if a design requires a consultant to perform a significant amount of survey work then location would be an important consideration.

The FHWA also said location should not be the sole factor for selecting a consultant nor should it have a disproportionate amount of weight over other evaluation factors. We found other states we contacted formally consider location on a project-by-project basis and evaluate it when a project requires a consultant to spend a great deal of time at the project. For example, Arizona officials indicated consultants can be given an additional five points on their score if they are within 35 miles of a project.

The MDT should consider a consultant's location during the selection process since state law requires location to be one of the selection criteria. However, since location may not be relevant on all projects, procedures should be developed on when it will be used and the amount of weight which will be applied to it.

Recommendation #3

We recommend the department develop procedures specifying when location will be evaluated and the amount of weight which will be applied to it.

Consultant Selection for City and County Projects

Montana's cities and counties receive federal and state funding to fund projects such as road or bridge improvements. Funding comes from a variety of programs like the surface transportation program and the secondary roads program. Local projects receive designation as a priority from city or county officials where the project is located. These projects must also be approved by the department and the Montana Transportation Commission. Cities and counties generally seek the assistance of a consultant to design the projects they have prioritized. In September 1996, local government consultant design projects totaled approximately \$3.7 million.

Consultant Selection Procedures for City and County Projects not Always Followed

A CDS procedures manual describes the process which should be followed when selecting consultants. During our review of consultant design projects for cities and counties we noted these procedures were not always followed. Examples of problems we identified included consultant proposals not formally evaluated and inappropriate rating criteria used. There were also inconsistencies in the amount of involvement CDS had in selecting these consultants. Sometimes CDS was very involved in the selection and other times they were not involved at all. Inconsistencies exist because project engineers leave the decision up to the city or county as to whether they want the CDS involved in the selection process. Project engineers said if the city or county does not want assistance, then the CDS sends the written selection procedures to them.

Federal regulations (CFR 23.172.1) require consultant selection procedures be developed and approved by the FHWA to ensure an equitable selection process whenever federal-aid funds are involved. Federal regulations also require all government agencies to follow these procedures. However, during our review we found this was not always occurring. For one local government project reviewed,

Chapter III - Consultant Selection

we found the primary reason the consultant was selected was because the consultant hired several local subconsultants to work on the project. However, CDS procedures, state law, and federal regulations require several factors be considered when selecting a consultant. We also identified a project where the evaluation of final proposals was not documented or numerically evaluated as required by CDS' procedures and federal regulations. Overall, we found consultants are not being selected in a consistent manner when cities and counties are involved.

The MDT is Responsible for Ensuring Selection Procedures are Followed

Project engineers said they were aware that cities and counties were not always following the procedures, but indicated not much could be done because they can not control what cities and counties do. However, CFR 23.172.7 places the responsibility on the department for ensuring the procedures are followed. This federal regulation states:

"The State highway agency shall ensure that procurement actions by or through other State agencies or local agencies comply with this regulation. When Federal-aid highway funds participate in the contract, a local agency shall use the same procedures as used by the State. These contracts shall be subject to the prior approval of the State highway agency and the FHWA. Nothing herein shall be taken as relieving the State of its responsibility under Federal-aid highway laws and regulations for the work to be performed under any agreements entered into by a local agency."

We contacted other states to determine their procedures for selecting consultants when a city or a county is involved. These states generally had more controls for overseeing consultants selected by cities and counties. For example, both Idaho and Arizona allow cities and counties to select their own consultants. However, these states also formally review selection documentation to ensure formal selection procedures were followed. If they find procedures were not followed then the selection is voided and the process starts over. Arizona officials told us they canceled three selections over the last year because selection procedures were not followed by local entities.

MDT Should Establish Controls Over Local Government Projects

City and county governments are required to follow established procedures and state and federal laws when selecting consultants. The MDT needs to inform local governments of department procedures and state and federal laws relating to consultant selection. In addition, the department should establish controls to ensure local governments comply with these procedures and laws. These controls should include department review of documentation supporting why local governments selected a particular consultant. This review should be performed prior to contracts being awarded.

Recommendation #4

We recommend the department establish controls to ensure local governments follow proper consultant selection procedures.

Chapter IV - Contract Supplements

Introduction

A supplement is an agreement to modify the dollar amount of the original contract to compensate a consultant for work outside the scope of the original contract. One of the main reasons why MDT officials requested us to review CDS' process for administering consultant design projects is because of the large number and cost of supplements on these projects. CDS currently administers 60 consultant design projects. The original cost of the contracts for these projects totaled \$12.3 million. We noted 34 of these projects had at least one supplement since the contract was signed and many of these had more than two supplements. Supplements for these projects totaled \$7.8 million which increased the cost of these contracts to \$20.1 million. This represents an increase of 63 percent.

We evaluated supplements to determine why they occur and evaluated CDS' process for approving them. This review included evaluating how CDS staff determine if work is outside the scope of the original contract, how much work must be done, and how much the department should pay for a supplement.

Why do Supplements Occur?

Based on our review we found there are a number of reasons why supplements occur. The following provides some examples:

- MDT may assign work to the consultant that the department originally intended to complete. For example, the MDT intended to design the bridges for a road design project, but later determined the department's workload did not allow them to do the design. A \$192,000 supplement was approved so the consultant doing the road design could also design the bridges for the project.
- Consultants are generally assigned more complex projects which can experience problems that could not be identified when MDT originally set the scope of the project. Determining how to solve such a problem often leads to work outside the scope of the contract. For example, five projects located on the Highway 93 corridor resulted in \$2.7 million worth of supplements. Most of these were due to additional environmental analysis needed to address concerns of the Confederated Salish and Kootenai Tribe and other residents living in this area.

Chapter IV - Contract Supplements

- Contracts often have clauses for work to be done as an "extra-cost item." For example, it is difficult to determine how many public meetings will be necessary for a project. Contracts generally indicate designs will include one public meeting and others will be done when necessary as an extra cost item.
- Additional work often results from public meetings, meetings with other government agencies, or changes in government regulations. For example, a change in federal regulations required projects due to be let for construction after 1996 be designed in metric units. This resulted in several supplements so projects could be converted from English to metric units.

Part of our review included evaluating how the department sets the initial scope of a project to determine if the department sufficiently identifies the extent and type of work a project will entail. This helped us determine if supplements were a result of project scope not being defined at the beginning of a project.

The MDT completes a preliminary field review prior to requesting proposals from consultants. This review identifies the major design features, project-related issues, and potential problems for a project. We found the MDT generally addressed these issues during the preliminary field review. However, it is not possible to identify every potential problem that may arise during a design. For example, we identified projects where unforeseen environmental issues resulted in supplements to address the issue. It is not possible to eliminate all supplements on all consultant design projects.

Controls Over Supplements Must be Improved

The policy currently in place requires the department to approve supplements before any additional work is done on a project. This policy is designed to give the MDT the control to determine if the work is outside the scope of the original contract, what work activities are needed, and the cost of this additional work.

We identified a number of concerns related to the department's controls over supplements. For example, project engineers were not always aware additional work was needed until after the consultant had started or completed the work. CDS procedures require project engineers to make this decision before obtaining information from

the consultant to ensure the department is not influenced by the consultant. We also questioned the need for some supplements which were approved and often could not determine whether the costs of the supplements were "fair and reasonable" to the state.

Procedures and Federal Regulations for Approving Supplements not Followed

Approving supplements should follow procedures similar to those used for the original contract. This includes determining what the scope of work should be, preparing a reliable cost estimate, and negotiating the cost of the supplement with the consultant. CDS procedures require project engineers to document why work is out of scope, the actual work steps needed, and the cost of performing these work steps. In addition, federal regulations relating to contract modifications (CFR 23.172.11) require any modification to a contract to clearly outline any changes made and determine the method of compensation. Cost estimates should outline the additional work and the cost the department believes a supplement will include. However, based on our file reviews we found the CDS generally does not do this. Cost estimates were not documented for 14 of the 21 supplements (67 percent) we reviewed. Therefore, we were not able to determine if the cost of these supplements was fair and reasonable or if all of the additional work was needed.

Our sample also identified supplements which were not outside the scope of the original contract. For example, we identified one supplement where the department paid a consultant more than \$3,100 to upgrade its road design software. Another supplement provided the consultant with a 7 percent increase in the remaining contract amount (over \$9,600) due to inflation. Both were approved as part of a larger supplement which indicates the supplement was not carefully reviewed before approval. Consequently, the department paid consultants for supplements which did not meet criteria spelled out in MDT's procedures or federal regulations.

Chapter IV - Contract Supplements

Limited Evidence Supplements are Negotiated

Federal regulations require negotiations be completed to ensure the proper type and amount of work is done at a price which is fair and reasonable. Negotiations are the department's only tool to ensure the proper amount and type of work is done at a fair and reasonable cost. However, we found limited evidence indicating CDS staff negotiated supplements with consultants.

As noted earlier, we identified several projects where cost estimates were not completed. Without a cost estimate, it is not possible for the CDS to negotiate the cost of a supplement with consultants. We found numerous examples where the cost proposed by the consultant was simply accepted and a supplement approved for that amount. For example, we reviewed one supplement for over \$119,000 but found no evidence of a cost estimate or that the price had been negotiated with the consultant. The project engineer for the project told us an estimate was not done because the project engineer was not familiar with the particular type of work which needed to be done. Consequently, a cost estimate was not completed, negotiations did not take place, and a supplement was approved for the cost submitted by the consultant.

Why do Weaknesses Exist in Approving Supplements?

The department does not have an adequate control system over contract supplements. Department management is not actively involved in reviewing and approving supplements. While letters giving final approval for supplements are generally signed by management, management has limited involvement in the decision. Although project engineers indicated they occasionally discuss supplements with management, there is no process requiring project engineers to provide management with department cost estimates or other department documentation supporting the supplement. Overall, there is limited discussion between project managers and MDT management about project supplements.

We found management at transportation departments in other states have more involvement. For example, Idaho officials indicated project managers must formally justify why supplements are necessary to the department's consultant board. This includes providing a description of the work which needs to be done and providing a cost estimate for the work. The consultant board then

makes the decision whether to approve a supplement based upon the information provided by the project manager. They said this helps ensure project managers consider all aspects of a supplement before entering into negotiations with a consultant and approaching the board for approval.

We also found project engineers generally rely on information provided by consultants to determine if additional work is needed and its cost instead of actively participating in this decision. For example, project engineers rarely visit the project site to determine if a supplement is needed and, if so, what work needs to be done. Visiting a project site might include using other MDT staff to help make this decision. For example, if a consultant believes a supplement is required because additional environmental work is needed, a project engineer could take a member of the MDT's environmental staff to review the site to help determine what work needs to be done. This would help ensure reliable cost estimates are completed and help improve the negotiation process with consultants.

MDT Management Needs More Involvement

CDS procedures and federal regulations require CDS staff to document why supplements are needed, any additional work necessary, and the cost of this work. In addition, they require supplements be negotiated to ensure the work is done at a fair and reasonable price. However, we identified examples where the reasons for supplements were not documented, cost estimates were not done, decisions to approve a supplement were based only on information provided by consultants, and the supplement's cost was not negotiated with the consultant. We also identified examples of supplements which were approved but were not outside the scope of the original contract.

If the department had a control structure requiring MDT management to have a more active role in approving supplements, many of the problems we identified may not have occurred. One way of doing this would be to have MDT's consultant selection board approve the more significant supplements. This might include supplements where the cost of doing the work is high or where the scope of work is changed significantly. In addition to working with

Chapter IV - Contract Supplements

the board, project engineers should be required to discuss less significant supplements with CDS management before they are approved.

Recommendation #5

We recommend the department establish a control system which requires department management be more involved in reviewing and approving supplements.

Chapter V - Project Administration

Introduction

In addition to overseeing the selection process, the CDS is also responsible for administering consultant designs once a contract is signed. Project administration includes scheduling when projects will be completed, identifying potential problems, approving project invoices for payment, monitoring a jobs progress, and coordinating information and activities between the various MDT units and the consultant. For this to work efficiently, information should be reviewed and distributed in a timely manner. This is the role of the CDS.

During our review, we noted the CDS can make improvements in its administration of consultant design projects. The areas where improvements can be made include establishing project schedules and being more active in managing consultant design projects.

Project Schedules

The American Planning Association maintains one of the most useful tools in effectively managing a project is the development of a detailed project schedule. A schedule lets the consultant and the CDS know what is to occur and when. It also allows the CDS to monitor whether appropriate progress is being made and to coordinate design activities with the consultant and other MDT units. During our review, we noted a formal system is not used to schedule consultant design projects. Consequently, we identified a number of problems related to project administration. These include:

- Delays by the department in getting design-related information to consultants. Examples include delays in providing information such as photogrammetry and contour mapping, soil survey investigations, and environmental information. We identified two projects where consultants did not receive information until a year after the information was supposed to be provided.
- Delays by the department when reviewing, approving, and commenting on design-related reports provided by consultants. This included information such as scope-of-work reports, hydraulics reports, and geotechnical reports.
- Consultant design projects often extend several years past the date the contract says the project should be completed. For the sample of projects we reviewed, projects were extended an

Chapter V - Project Administration

average of two-and-a-half years. Some of these delays were justified because supplements were approved.

- The dates for completing project activities are generally not adjusted when a consultant completes additional work. This gives projects the appearance of being off schedule when additional work often extends a project.

Consultant Designs are not Assigned Realistic Schedules

The department's in-house design staff indicated it generally takes about four years to complete a typical in-house design. However, even though consultants are assigned more complex designs, these projects are generally assigned a flat two-year completion schedule. This is one reason we identified the problems discussed above. Consultant designs are not assigned realistic completion schedules because little consideration is given to a project's complexity or the type of work that may be involved. For example, we identified two projects where the consultant was responsible for re-aligning railroad tracks as part of road reconstruction. Whenever a design affects railroad tracks, the consultant must coordinate with whoever owns the tracks and obtain their approval for any impact the design may have on the tracks. In addition, specific design requirements may also need to be approved by the Federal Railroad Administration. Based on our file reviews and discussions with MDT officials, obtaining approval for impacting railroad tracks often takes a year by itself. However, we found consultant design schedules do not account for such issues.

Project Management System

The department utilizes its Project Management System (PMS) to schedule activities for in-house designs. The PMS is a critical path scheduling system designed to schedule a series of design activities within the department. This system operates from the department's mainframe computer and schedules, monitors, and coordinates all activities for MDT designs. It performs functions such as calculating project ready dates, scheduling project activities for all MDT units, providing project status information, and displaying activities falling behind schedule.

We discussed consultant design projects with officials from other MDT units. They indicated for in-house design projects they manage the work and time for their staff from the PMS since it

shows what work needs to be done and when it needs to be completed. They said the system also gives them enough advanced notice so they can get the work done on time. For many consultant design projects, these same MDT units often have responsibilities such as completing specific design-related work or reviewing and approving reports submitted by consultants. However, because there is no formal schedule used to schedule consultant design projects, officials from these units said they generally are not aware when their work needs to be completed for these projects.

MDT Believes PMS Should be Used

Other states have systems similar to the PMS and told us these systems are beneficial in establishing schedules for consultant design projects. We believe the PMS would be the most effective way for the MDT to schedule consultant design projects because the department relies on the system to coordinate other work it must do, such as in-house designs. Department officials told us the PMS system should be used to establish project schedules for consultant design projects. They believe this lack of scheduling is why the department experiences so many delays in getting information to consultants and has problems coordinating these projects within the department.

Recommendation #6

We recommend the department use the Project Management System to establish project schedules for consultant designs.

Project Management

The main function of project engineers is to be a liaison between the MDT and consultants the department has hired. Specific duties require the project engineers to:

- Be aware of any changed conditions that may affect a design
- Approve invoices for payment
- Review progress reports to ensure contract compliance
- Identify potential problems

- Schedule meetings with consultants if events occur which have a significant impact on a project
- Maintain project documentation.

MDT officials indicated a project engineer's main function is to ensure consultant design projects "run smoothly."

Several Concerns Identified Related to Project Management

How effective a consultant design project is managed directly correlates to how many problems a project experiences. Based on our review of consultant design projects and interviews with MDT staff, we identified a number of concerns related to how effectively consultant design projects are managed. These included:

- Documentation missing from consultant project files. This included documentation related to cost estimates and consultant selection.
- Examples where there were no signed agreements for supplements. For example, one project we reviewed had a \$120,000 supplement but no signed agreement spelling out the supplement's terms.
- Project documentation filed with the wrong project.
- Project files not established even though the contract was signed and the design was underway. Seven projects were identified where files had not been established even though a project had been active for between five and seven months.
- Project documentation lying loose and stacked in project engineers' offices.
- A general lack of effort or organization to coordinate consultant design projects with other MDT units and consultants in a timely manner. For example, other MDT units indicated they often do not receive reports needing their review and approval until the day before the report was due.

Projects not Actively Managed

Both federal regulations and CDS procedures require project engineers to actively manage consultant design projects. This includes attending progress meetings with consultants, being aware of changing conditions on a project which could lead to a supplement, and maintaining project-related documentation. However, based upon the concerns discussed earlier we do not believe consultant projects are being actively managed. Project engineers indicated many of the problems discussed occurred because of a lack of time to do everything required of them. We believe project engineers could better organize their work and improve their coordination and communication with consultants and other MDT units.

Projects Generally have Ineffective Communication and Coordination

Based on the sample of consultant designs reviewed, we determined designs are often not on schedule. Projects reviewed in our sample were an average of two-and-a-half years past their original completion date. We realize supplements are extending completion dates, but many of the delays are occurring because there was a breakdown in communication and coordination among the CDS, other MDT units and districts, and consultants regarding consultant design projects. The department's design manuals say communication and coordination between MDT units is essential and must be continuous to reduce the number of problems that occur on design projects. Consultants told us they often experience delays because they are not provided with department information in a timely manner. In addition, other MDT units cited similar concerns. As discussed in the previous section much of this is due to an ineffective scheduling system. However, consultants and other MDT units also attribute these problems to project engineers not effectively communicating and coordinating with them.

Other States use More Active Management

We noted other states take a more proactive approach to their consultant design projects than CDS. For example, both Arizona and Idaho have frequent meetings with consultants to discuss the designs and solve any potential problems. Arizona meets with consultants on a monthly basis and has plan reviews when the plans are 30, 60, 95, and 100 percent completed. Idaho meets with consultants every couple of weeks. Arizona and Idaho believe

frequent meetings are necessary to minimize problems and keep projects on schedule.

Montana does meet with consultants but not as frequently as other states we contacted. Meetings with consultants are generally limited to alignment reviews and reviews of final plans. Although project engineers said they have frequent conversations with consultants on the phone, we were not able to verify this because these conversations are not documented. Project engineers said they used to have more meetings with consultants but in an attempt to streamline the consultant design process they eliminated these meetings. However, CFR 23.172.13 requires project engineers to visit the project and/or consultant on a schedule which is commensurate with the magnitude, complexity, and type of work. Based on our file reviews, discussions with MDT staff, and interviews with consultants, we found project engineers do not generally meet with consultants anymore frequently on difficult projects than on less difficult projects. Consultants and MDT management believe more frequent meetings would allow project engineers to identify potential problems earlier, determine how these problems can be addressed, and improve coordination between consultants and other MDT units.

Active Management Requires Four Steps

To actively manage consultant design projects the department should institute four steps. First, the MDT should establish the basis for effective communications between the project engineer, other MDT units and districts, and the consultant. This includes providing prompt feedback for work submitted, providing copies of design-related information to all parties in a timely manner, and frequent meetings during the design to discuss projects and determine expectations. Second, the MDT should require project engineers to organize their work. Being organized is important in order to maintain control over the job. One step toward doing this is for project engineers to file documentation in a timely manner so it is readily-accessible to anyone who needs it. Third, CDS management and project engineers should hold periodic in-house project status meetings. Finally, management reviews of the projects would help ensure projects are actively managed.

Recommendation #7

We recommend the department:

- A. Implement effective communications among project engineers, other MDT units, and consultants.**
- B. File consultant design information upon its receipt and/or review.**
- C. Conduct periodic project status meetings.**
- D. Conduct management reviews of consultant design projects.**



December 6, 1996

DEC 6 1996

Scott A. Seacat
Legislative Auditor
Room 135
State Capitol
Helena, MT 59620

Subject: Department of Transportation's Consultant Design
Section Audit Response

I am transmitting our response to the Consultant Design
Section Audit performed by your office.

Thank you for your staff's effort, cooperation, and
professionalism during this audit.

If you have questions concerning our response, please call
me at 444-6201.

**MONTANA DEPARTMENT OF TRANSPORTATION
CONSULTANT DESIGN SECTION AUDIT RESPONSE**

A team of consultants, Federal Highway Administration (FHWA) personnel and Montana Department of Transportation (MDT) personnel was set up to discuss the issues raised by the performance audit of the Consultant Design Section (CDS). This team was charged with reviewing the CDS audit, making recommendations to the Consultant Design Section and preparing the audit response. Members of the team included: Shawn Foutch (Robert Peccia & Assoc.), Harry Hughes (Consulting Engineers Council), Dave Stahly (Stahly Engineering), David Miller (FHWA), Carl Peil (MDT), Sam Naseem (MDT), Nick Rotering (MDT), Robert Fischer (MDT) and Joe Kolman (MDT).

A joint MDT/consultant team will be formed to develop and implement procedures addressed in MDT's response.

Recommendation #1

We recommend the department:

- A. Establish and implement procedures on how cost estimates should be prepared.**
- B. Establish a management review process to review cost estimates before negotiations take place.**
- C. Provide training to project engineers to develop their negotiation skills or use other staff with negotiation experience.**

Response

A. We concur.

Procedures will be established that reflect the various types of projects that the MDT manages. Training will be provided to ensure that estimates are prepared consistently. The MDT will investigate having consultant firms explain the process they use to develop estimates. The Department has been in the process of revising the Project Management System (PMS) to include consultant design projects, which will facilitate creation of a database for future comparison of cost estimates.

B. We concur.

Cost estimates are currently being reviewed by the Consultant Design Engineer. The selection process will be formalized through written procedures.

C. We concur.

The Consultant Design Engineer is researching available training in the art of negotiations and the training will be provided to Consultant Design staff.

Recommendation #2

We recommend the department complete formal end-of project performance evaluations of

consultants and maintain the evaluations for future reference.

Response

We concur.

A standard evaluation form will be developed to evaluate the consultant at the end of each project. Evaluations will include comments from all major MDT areas involved with the project. The consultant will be offered the opportunity to provide a written response which will be added to the evaluation. Evaluations will be maintained for future reference.

Recommendation #3

We recommend the department develop procedures specifying when location will be evaluated and the amount of weight which will be applied to it.

Response

We concur.

In accordance with Section 18-8-204 MCA, MDT will include up to a 5% allowance for location. This percentage will be determined by the user unit in coordination with the Consultant Design Engineer.

Recommendation #4

We recommend the department establish controls to ensure local governments follow proper consultant selection procedures.

Response

We concur.

Cities and counties need to follow the same procedures for consultant selection that are used by the state. The Consultant Design Section will ensure compliance with MDT procedures prior to authorization of federal funds. Appropriate training will be provided. Top level management of MDT is and has been meeting with cities and towns to let them know the requirements and the need to follow those requirements.

Recommendation #5

We recommend the department establish a control system which requires department management be more involved in reviewing and approving supplements.

Response

We concur.

The procedures will be revised to require contract amendments be reviewed and signed off by management.

Recommendation # 6

We recommend the department use the Project Management System to establish project schedules for consultant designs.

Response

We concur.

The MDT had already identified this need. A new flow chart and activities are being developed that are unique to projects involving consultants. Training will be provided as needed.

Recommendation #7

We recommend the department:

- A. Implement effective communications among project engineers, other MDT units, and consultants.**
- B. File consultant design information upon its receipt and /or review.**
- C. Conduct periodic project status meetings.**
- D. Conduct management reviews of consultant design projects.**

Response

A. We concur.

MDT will establish effective communication between the project engineer, other MDT units and districts, and the consultant.

B. We concur

Department policy is to file information upon receipt or review.

C. We concur.

Consultant Design Section management and project engineers will hold periodic in house project status meetings.

D. We concur.

Management will conduct periodic reviews to ensure that projects are being actively managed.

